

Rocky Mountain National Park benefits from citizen scientists

by Cheri Yost

“In 2002 a legion of citizen scientists donated more than 5,600 hours to Rocky Mountain National Park research projects through the Continental Divide Research and Learning Center.”

National Park Service volunteer Jim Snider explains a wilderness study to a potential participant.

AT AN ELEVATION OF 13,160 FEET IN COLORADO sits a field of pink granite boulders that visitors scamper over on their way to the summit of Rocky Mountain National Park’s highest mountain, Longs Peak. It is a stark place devoid of vegetation, scoured by strong winds, and dried by intense sun. Few visitors know that it is among the most complicated landscapes in the park. Geoscientist Jon Achuff has studied this area and believes the entire Longs Peak Boulder Field is moving on a glacier. His research is time-consuming and strenuous, requiring him to carry delicate equipment in all seasons more than 7 miles to the research site. This research effort is astonishing for another reason: Achuff is a volunteer. In 2002 a legion of citizen scientists donated more than 5,600 hours to Rocky Mountain National Park research projects through the Continental Divide Research and Learning Center.



NPS PHOTO (BOTH)

Research volunteers came from diverse backgrounds and worked on a variety of research activities in 2002, ranging from a Girl Scout troop distributing cameras for a wilderness study to retirees researching the history of the park’s buildings. Groups and individuals monitored vegetation recovery in a burned area, studied rare plant species, observed bighorn sheep behavior, counted elk, monitored air quality, and mapped vegetation for amphibian habitat. The learning center also recruited volunteers for cultural resource projects, enlisting them to research specific historical topics, preserve photographs and documents, and measure historic structures.

Professional scientists are also a critical part of the citizen scientist volunteer initiative at Rocky Mountain National Park. Volunteer and principal investigator Rich Bray has led the butterfly moni-

toring efforts for the past six years, donating a total of 6,000 hours. Not only do researchers like Bray give their own time, but they also help train others. With the help of the learning center, Bray recruited and trained volunteer field assistants. The financial value of the contribution of volunteer scientists is also substantial. For example, Achuff’s glacier studies would have cost the park or its partners approximately \$35,000, and volunteer efforts to measure historic buildings saved the park thousands of dollars in contract fees.

Whether they are volunteers assisting researchers with a specific project or professional scientists acting as principal investigators, research volunteers work closely with park professionals to develop and complete research projects. Volunteer researchers extend the capacity of the National Park Service to develop the science necessary to appropriately manage park resources. For example, volunteers working with a university researcher observed the behavior of bighorn sheep, helping park scientists to develop quantitative documentation of the influence of cars and people on bighorn behavior. Based on this research, managers are creating a strategy for reducing stress on the animals when they attempt to cross a popular park road to access a mineral lick.

Not only does the park benefit from citizen scientists, but also volunteers deepen their understanding of the complexities of ecosystems, learn about the quandaries of resource protection, and become active stewards of the park’s natural and cultural resources. In addition to providing exceptional educational opportunities, parks are living laboratories that offer unparalleled research possibilities to professional scientists. National parks allow researchers to investigate natural systems that are relatively undisturbed, providing important opportunities to develop baseline information.

Supporting park research and providing exceptional educational experiences are the dual goals of the National Park Service’s learning centers. The Continental Divide Research and Learning Center found an exciting and rewarding way to reach these goals by recruiting citizen scientists to assist with park research activities. ■

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With Longs Peak of Rocky Mountain National Park in the background, volunteer and principal investigator Jon Achuff, other volunteers, and park staff survey the Longs Peak Boulder Field for glacier movement.

